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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/876,781	06/07/2001	David S. Klutz	2957	8854

7590 05/03/2006

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EXAMINER	
BOYD, JENNIFER A	

ART UNIT	PAPER NUMBER
1771	

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/876,781	KLUTZ ET AL.	
	Examiner	Art Unit	
	Jennifer A. Boyd	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *23-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *23-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 14, 2006 has been entered. The Applicant's Amendments and Accompanying Remarks, filed February 14, 2006, have been entered and have been carefully considered. Claims 23 and 30 are amended and claims 23 – 31 are pending. In view of Applicant's amendments to the independent claims requiring that the softener and the durable-press resin are foam, the Examiner withdraws all previously set forth rejections. After another search was conducted, additional prior art has been found which renders the invention as currently claimed unpatentable for reasons herein below.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. Claims 23 – 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leonard Farias' research report entitled *Comparison Study of Polymer Research Finish to a Conventional Resin System: A Laundering Study* in view of Walter et al. (US 4,099,913).

As to claims 23 – 26, 29 and 30, Farias et al. teaches a 100% cotton twill fabric

treated with a specialty polymer finish comprising a resin and a softener (Objective, page 2). It should be noted that Farias teaches the use of a twill fabric which is known in the art to have a structure such that the filling yarns are predominant on the back surface. Farias et al. notes that the optimum resin/softener system may require the application of the resin to one side of the fabric (back), or "second face" and the application of softener/lubricant(s) to the opposite side (face), or "first face", of the fabric (Conclusion, page 17). In Figure 1, one formulation comprises DMDHEU resin, which is a well-known durable press resin, and silicone which functions as a softener (Experimental Approach, page 3).

Farias fails to teach that the softener is in the form of a foam and the durable-press resin in the form of a foam as required by claim 23.

Walter is directed to foams containing a functional textile treating compound for application to a substrate such as a fabric or textile (Abstract). Walter teaches that the use of foams enables the application in a uniform manner of many functional compositions that can be used in the treatment of a textile fabric to improve properties (Abstract). Walter teaches that the various compositions can be applied to the fabric such as antistats permanent press or wash and wear compositions, softeners, lubricants, etc. (column 7, lines 1 – 15). Walter teaches that the process of the invention results in lower energy consumption, reduced water consumption and water pollution and absence of migration of the functional chemical deposited on the fabric during the drying operation, the ability to treat one side of the fabric without affecting the other side of the fabric if desired, more efficient utilization of the functional chemicals, higher processing speeds and other advantages (column 3, lines 30 – 45).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the softener and durable-press resin of Farias in the form of foam as suggested by Walter motivated by the desire to treat one side of the fabric without affecting the other side of the fabric among other advantages such as lowered energy consumption, lowered water consumption and higher processing speeds.

As to claims 27 and 28, Farias in view of Walter discloses the claimed invention except for the softener comprises at least about 6% owf as required by claims 27 and the durable press resin comprises at least 5% owf as required by claims 28. However, in the absence of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize the amount of softener and durable press resin since it has been held that where general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 220 F.2d 454 USPQ 233 (CCPA 1955). In the present invention, one would have been motivated to optimize the amount of softener and durable press resin in order to create a fabric with the desired properties.

4. Claims 23 – 24 and 26 – 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cain (US 3,634,126) in view of Walter et al. (US 4,099,913).

As to claims 23 – 24 and 26, Cain is directed to a process for controlling location of composition in fabric (Title). Cain teaches that the invention provides for depositing two different compositions on two fabrics wherein each surface of the fabrics contains predominately

different compositions (Abstract). Cain notes that the process makes it possible to locate additives on the face of a fabric and it is possible to locate other compositions on the back of the fabric to obtain the desired properties of the additive without detracting from the desired properties of the face (column 2, lines 60 – 70). Examples of suitable compositions for each face are aminoplast resins for improving the durable press characteristics and softeners (column 3, lines 20 – 35). Cain teaches in Example 1 that the fabric comprises 35% cotton fibers (column 4, lines 70 – 75).

As to claim 29, Cain teaches providing a composition on a fabric. It should be noted that, according to Wikipedia, "fabric" or "cloth" is defined as a flexible artificial material made up of a network of natural or artificial fibers formed by weaving, knitting or pressed into felt. It is the position of the Examiner that the term "fabric" would encompass Applicant's requirement of woven, knit or nonwoven fabric.

Cain fails to teach that the softener is in the form of a foam and the durable-press resin in the form of a foam as required by claim 23.

Walter is directed to foams containing a functional textile treating compound for application to a substrate such as a fabric or textile (Abstract). Walter teaches that the use of foams enables the application in a uniform manner of many functional compositions that can be used in the treatment of a textile fabric to improve properties (Abstract). Walter teaches that the various compositions can be applied to the fabric such as antistats permanent press or wash and wear compositions, softeners, lubricants, etc. (column 7, lines 1 – 15). Walter teaches that the process of the invention results in lower energy consumption, reduced water consumption and

water pollution and absence of migration of the functional chemical deposited on the fabric during the drying operation, the ability to treat one side of the fabric without affecting the other side of the fabric if desired, more efficient utilization of the functional chemicals, higher processing speeds and other advantages (column 3, lines 30 – 45).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the softener and durable-press resin of Cain in the form of foam as suggested by Walter motivated by the desire to treat one side of the fabric without affecting the other side of the fabric among other advantages such as lowered energy consumption, lowered water consumption and higher processing speeds.

As to claims 27 and 28, Cain in view of Walter discloses the claimed invention except for the softener comprises at least about 6% owf as required by claims 27 and the durable press resin comprises at least 5% owf as required by claims 28. However, in the absence of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize the amount of softener and durable press resin since it has been held that where general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 220 F.2d 454 USPQ 233 (CCPA 1955). In the present invention, one would have been motivated to optimize the amount of softener and durable press resin in order to create a fabric with the desired properties.

5. Claims 30 - 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwemmer et al. (US 3,811,834) in view of Walter et al. (US 4,099,913).

Schwemmer is directed to a new and improved method of finishing cellulose-containing textile materials, especially to render such shrinkage resistant, crease resistant and to impart thereto permanent press properties, etc., through the use of reactive finishing agents, drying of the textile material occurring following application of the finishing agent (column 1, lines 5 – 25). The finishing technique of the present invention contemplates application of a bath containing the reactive finishing agent or agents, possibly also auxiliary agents such as softeners, etc., to the textile material in such a manner that the textile material is imbued as uniformly as possible and at all locations thereof with the finishing bath (column 1, lines 20 – 26). Schwemmer teaches that if a bath is applied which consists of a number of partial baths, then a special applicator or kiss roll can be provided for each such bath. The possibility thus exists of applying the different partial baths to the same face of the textile web or when working with two partial baths to apply each respective partial bath to a respective face of such textile web (column 13, lines 28 – 40). It should be noted that in one embodiment a partial bath may comprise of material to impart permanent press properties and another partial bath may comprise softener.

Schwemmer fails to teach that the softener is in the form of a foam and the durable-press resin in the form of a foam as required by claim 23.

Walter is directed to foams containing a functional textile treating compound for application to a substrate such as a fabric or textile (Abstract). Walter teaches that the use of foams enables the application in a uniform manner of many functional compositions that can be

used in the treatment of a textile fabric to improve properties (Abstract). Walter teaches that the various compositions can be applied to the fabric such as antistats permanent press or wash and wear compositions, softeners, lubricants, etc. (column 7, lines 1 – 15). Walter teaches that the process of the invention results in lower energy consumption, reduced water consumption and water pollution and absence of migration of the functional chemical deposited on the fabric during the drying operation, the ability to treat one side of the fabric without affecting the other side of the fabric if desired, more efficient utilization of the functional chemicals, higher processing speeds and other advantages (column 3, lines 30 – 45).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the softener and durable-press resin of Schwemmer in the form of foam as suggested by Walter motivated by the desire to treat one side of the fabric without affecting the other side of the fabric among other advantages such as lowered energy consumption, lowered water consumption and higher processing speeds.

As to claim 31, Schwemmer in view of Walter teaches the claimed invention above but fails to teach the combination of applying different partial baths to the same face of the textile web (i.e. softener partial bath and permanent press partial bath) ***and*** a partial bath of softener on the opposing side of the textile. It would have obvious to one of ordinary skill in the art at the time the invention was made to apply a partial bath of softener to both sides and a partial bath of permanent press treatment to the opposing side motivated by the desire to create a soft and crease-free textile material while minimizing the use of finishing agents.

Response to Arguments

6. Applicant's arguments filed February 14, 2006 have been fully considered but they are not persuasive.

Applicant argues that Farias' research report, Cain and Schwemmer fail to teach that the softener and the durable-press resin are foam. Please see the new rejections above which account for Applicant's amendment.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Boyd whose telephone number is 571-272-1473. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jennifer Boyd
April 21, 2006

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